

**CERTIFICATE OF EXPRESS MAILING**

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Date: April 8, 2005

By: Jennifer Arch

Attorney Docket No. 100716-61 (KGB)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT : Manfred T. REETZ, et al  
SERIAL NO. : To Be Assigned [This is a 371 of PCT/DE2003/003226]  
CUSTOMER NO. : 27384  
FILED : Herewith  
FOR : MIXTURES OF CHIRAL MONOPHOSPHORUS COMPOUNDS  
USED AS LIGAND SYSTEMS FOR ASYMMETRIC  
TRANSITION METAL CATALYSTS  
ART UNIT : To Be Assigned  
EXAMINER : To Be Assigned

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

SIR:

Pursuant to 37 CFR §§ 1.56, 1.97 and 1.98, Applicants respectfully request that the Examiner consider the references listed on the attached Form PTO-1449.

**I. Timeliness, Fees and Certifications in lieu of Fees**

☒ A. This information disclosure statement is being filed within three months of the filing date of the application, or within three months of entry into the national stage, or before the mailing of a first Office Action on the merits. Pursuant to 37 CFR § 1.97(b), consideration of this information disclosure statement does not require a fee or a statement under 37 CFR § 1.97(e). However, should the Assistant Commissioner determine that a fee

is, in fact, due, the Assistant Commissioner is hereby authorized to charge the fee to Deposit Account No. 14-1263.

☐ B. This information disclosure statement is being filed after the period in A above, but before the mailing of either a final action or a notice of allowance. Pursuant to 37 CFR § 1.97(c), consideration of this information disclosure statement requires a fee or a statement under 37 CFR § 1.97(e):

☐ 1. The Assistant Commissioner is hereby authorized to charge the fee set forth in 37 CFR § 1.17(p) to Deposit Account No. 14-1263.

☐ 2. Applicants hereby state that each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement.

☐ 3. Applicants hereby state that no item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign patent application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 CFR § 1.56 more than three months prior to the filing of this information disclosure statement.

☐ C. This information disclosure statement is being filed after the period specified in B above, but on or before the payment of the issue fee. Pursuant to 37 CFR § 1.97(d), consideration of this information disclosure statement requires a petition, which Applicants hereby request, and payment of the petition fee, which is set forth in 37 CFR § 1.17(i), and which the Assistant Commissioner is hereby authorized to charge to Deposit Account No. 14-1263. Consideration of this information disclosure statement also requires a statement under 37 CFR § 1.97(e):

☐ 1. Applicants hereby state that each item of information contained in this information disclosure statement was cited in a communication from a foreign patent

office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement.

☐ 2. Applicants hereby state that no item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign patent application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 CFR § 1.56 more than three months prior to the filing of this information disclosure statement.

## **II. Copies of Listed References**

☒ A. Copies of all references listed on the attached Form PTO-1449 are being supplied. Copies of U.S. patents are not included pursuant to Pre-OG Notice dated July 11, 2003.

☐ B. Copies of all references listed on the attached Form PTO-1449 have already been supplied during the prosecution of prior application Serial No. \_\_\_\_, filed \_\_\_\_, from which the present application claims priority pursuant to 35 USC § 120. Therefore, pursuant to 37 CFR § 1.98(d), copies of the references listed on the attached Form PTO-1449 are not now being supplied.

☐ C. This application is a PCT national stage application, all references listed on the attached Form PTO-1449 were cited in the international search report, and PCT/DO/EO/903 indicates that both the international search report and the copies of the references listed on the attached Form PTO-1449 are in this national stage file. Therefore, copies of the references listed on the attached Form PTO-1449 are not now being supplied.

## **III. Concise Statement of Relevance**

☐ A. All references listed on the attached Form PTO-1449 are in the English language, and, therefore, a concise statement of relevance is not required.

☐ B. All references listed on the attached Form PTO-1449 are referred to in the specification and/or were cited in the international search report, and a copy of that search report, which indicates the degree of relevance found by the Search Authority, is attached.

The Examiner will note that English language counterparts or Abstracts of non-English language references are also enclosed, as follows:

☐ C. All references listed on the attached Form PTO-1449 were cited in the search report issued by the \_\_\_\_\_ Patent Office, and an English-language version of that search report, which indicates the degree of relevance found by that Patent Office, is attached.

☒ D. This application is a PCT national stage application, all references listed on the attached Form PTO-1449 were cited in the international search report, and a copy of that search report, which indicates the degree of relevance found by the International Search Authority, is attached.

☐ E. All listed on the attached Form PTO 1449 were cited during the prosecution of the prior application indicated above under II.B.

#### **IV. Additional Information**

☐ A. In addition to the references listed on the attached Form PTO-1449, Applicants wish to bring to the attention of the Examiner the following abandoned or co-pending U.S. patent applications:

[Pursuant to 37 CFR § 1.98(a)(2)(iii), copies of these applications are not being submitted.]

☐ B. In addition of the references listed on the attached Form PTO-1449, Applicants wish to bring to the attention of the Examiner the information provided on the attached sheet.

Consideration of the foregoing in relation to this application is respectfully requested.

Respectfully submitted,  
NORRIS McLAUGHLIN & MARCUS, P.A.

By 

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT'S**

(Form PTO-1449)

Application Number

Filing Date:

First Named Inventor

Art Unit

Examiner Name:

JCT3 Rec'd PCT/PTO 08 APR 2005  
To Be Assigned

Herewith

Manfred T. REETZ et al

To Be Assigned

To Be Assigned

Sheet 1

of 1

Attorney Docket Number:

100716-61 (KGB)

**U.S. PATENT DOCUMENTS**

Examiner's Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup>			
	AA	US - 5,360,938	11-01-1994	Babin et al	Column 2, lines 35; column 3, line 32, examples 2, 9, 10, 23, 48, 49 relevant to claims 1, 3-6, 9-15

**FOREIGN PATENT DOCUMENTS**

Examiner's Initials*	Cite No.	Foreign Patent Document	Publication Date MM-DD-YYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup>				
	AB	WO 01/94278A	12-13-2001	Studiengesellschaft Kohle mbH	Page 3-page 11; examples 12-97; tables 1-8 relevant to claims 1, 3-6, 9, 10, 12, 14, 15	

**NON PATENT LITERATURE DOCUMENTS**

Examiner's Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	AC	CHEN W. et al: "Asymmetric activation of conformationally flexible monodentate phosphates for enantioselective hydrogenation"; Tetrahedron Letters, Elsevier Science Publishers, Amsterdam NL, Vol. 42, No. 49, December 3, 2001, pages 8737-8740 XP004321537	
	AD	Database Registry Online CA, Registry Number RN 174367-22-7, March 20, 1996 XP002271188	
	AE	REETZ M. T. et al.: "Mixtures of chiral and achiral monodentate ligands in asymmetric Rh- catalyzed olefin hydrogenation: reversal of enantioselectivity", Tetrahedron Letters, Elsevier Science Publishers, Amsterdam, NL, Vol. 44, No. 24, June 9, 2003, pages 4593-4596 XP004425274	
	AF	REETZ M. T. et al.: "A new principle in combinatorial asymmetric transition-metal catalysis: mixtures of chiral monodentate P ligands", Angew. Chem. Int. Ed., Vol 42, No. 7, (2003) pages 790-793 XP002270700	
	AG	PENA D., et al.: "Improving conversion and enantioselectivity in hydrogenation by combining different monodentate phosphoramidites; a new combinatorial approach in asymmetric catalysis" Org. Biomol. Chem., Vol. 1 (2003) pages 1087-1089 XP002270701	
	AH	BERG VAN DEN M et al: "Highly enantioselective Rhodium catalyzed hydrogenation with monodentate ligands" Journal of the American Chemical Society, American Chemical Society, Washington DC, US, Vol. 122 No. 46, November 22, 2000, pages 11539-11540 XP002249650	

**EXAMINER SIGNATURE:****DATE CONSIDERED:**

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>see Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>for Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

<sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

The collection of information is required by 37 CFR 1.197 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.